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RAW SEQUENCE LISTING

DATE: 04/24/2001

PATENT APPLICATION: US/09/749,273

TIME: 11:11:30

Input Set : N:\Crf3\RULE60\09749273.txt
Output Set: N:\CRF3\04242001\I749273.raw

```
SEQUENCE LISTING
      4 (1) GENERAL INFORMATION:
             (i) APPLICANT: Korenberg, Julie R.
     7
                            Yamakawa, Kazuhiro
            (ii) TITLE OF INVENTION: A NOVEL CHROMOSOME 21 GENE MARKER,
     9
    10
                                      COMPOSITIONS AND METHODS USING SAME
           (iii) NUMBER OF SEQUENCES: 3
    12
            (iv) CORRESPONDENCE ADDRESS:
    14
    15
                  (A) ADDRESSEE: CAMPBELL & FLORES, LLP
                  (B) STREET: 4370 La Jolla Village Drive, Suite 700
    16
    17
                  (C) CITY: San Diego
    18
                  (D) STATE: California
                  (E) COUNTRY: United States
    19
    20
                  (F) ZIP: 91212
     22
             (v) COMPUTER READABLE FORM:
    23
                  (A) MEDIUM TYPE: Floppy disk
                  (B) COMPUTER: IBM PC compatible
    24
    25
                  (C) OPERATING SYSTEM: PC-DOS/MS-DOS
    26
                  (D) SOFTWARE: PatentIn Release #1.0, Version #1.25
    28
            (vi) CURRENT APPLICATION DATA:
                  (A) APPLICATION NUMBER: US/09/749,273
C--> 29
C--> 30
                  (B) FILING DATE: 26-Dec-2000
    31
                  (C) CLASSIFICATION:
     33
           (vii) PRIOR APPLICATION DATA:
                  (A) APPLICATION NUMBER: 09/048,887
     34
     35
                  (B) FILING DATE:
     38
          (viii) ATTORNEY/AGENT INFORMATION:
     39
                  (A) NAME: Campbell, Cathryn A.
     40
                  (B) REGISTRATION NUMBER: 31,815
     41
                  (C) REFERENCE/DOCKET NUMBER: P-CE 2573
     43
            (ix) TELECOMMUNICATION INFORMATION:
     44
                  (A) TELEPHONE: (619)535-9001
     45
                  (B) TELEFAX: (619)535-8949
     48
        (2) INFORMATION FOR SEQ ID NO: 1:
     50
             (i) SEQUENCE CHARACTERISTICS:
     51
                  (A) LENGTH: 5141 base pairs
     52
                  (B) TYPE: nucleic acid
     53
                  (C) STRANDEDNESS: double
     54
                  (D) TOPOLOGY: linear
    56
            (ii) MOLECULE TYPE: cDNA
    59
           (vii) IMMEDIATE SOURCE:
                  (A) LIBRARY: TRISOMY 21 FETAL BRAIN cDNA LIBRARY
    60
    61
                 (B) CLONE: EHOC-1
    63
          (viii) POSITION IN GENOME:
    64
                  (A) CHROMOSOME/SEGMENT: 21q22.3
    66
            (ix) FEATURE:
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ENTERED

#2

(A) NAME/KEY: CDS

67





RAW SEQUENCE LISTING DATE: 04/24/2001 PATENT APPLICATION: US/09/749,273 TIME: 11:11:30

Input Set : N:\Crf3\RULE60\09749273.txt
Output Set: N:\CRF3\04242001\I749273.raw

68			( E	3) L(	CATI	ON:	157.	. 372	9.									
71	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:																	
73	CTGCAGGAAT CGGCACGAGG CGGCGCAACC GGCTCCGGAG CTGCCTGGCG CGGCCGGGCG GGCGGCGCCC CTCAGGCTCG GGCTCCGGCT GGGCCCGGCG CGGCCTCGGG GCTGCCCATG																60	
75	GGCG	GCGC	CCG C	CTCAC	GCTC	CG GG	CTCC	GGCI	GGC	CCCC	GCG	CGGC	CTC	GG (	GCTGC	CCATG		120
77	GGGC	GCGG	GG G	GCCC	GGCC	G GI	GACG	CCGG	ACC	CCC	ATG	GAC	GCC	TCT	GAG	GAG		174
78											Met	Asp	Ala	Ser	Glu	Glu		
79											1	•			5	•		
	CCG	CTG	CCG	CCG	GTG	ATC	TAC	ACC	ATG	GAG		AAG	CCC	ATC		ACC		222
												Lys						
. 83				10	,		-1-		15					20	,			
-	ጥርጥ	GCT	CCA		CAG	ידעע	ттΔ	ጥጥጥ		•	GTT	TAT	CCA		CTC	ጥርጥ		270
												Tyr						2,0
. 87	CJS	u	25	пор	OIII	71511	БСи	30	1111	JCI	· u ·	-1-	35	1111	ЦСС	001		
	CAC	CAG		CCA	A C A	CAA	CCA		CAA	TICC	A C A	AGG		ጥለጥ	GGC	CGG		318
												Arg						210
91	GIII	40	Leu	PIO	AIG	GIU	45	Met	GIU	пр	Arg	50	ser	ıyı	GLY	Arg		
	com		770	N TO C	3 mm	030		C 3 C	mam	220	mmm		C 3 3	mmc	***	CAC		266
												GTT						366
		Pro	гàг	Met	тте		Leu	GIU	ser	Asn		Val	GIN	Pne	гĀг			
95	55					60					65				~~~	70		
												CTC						414
	GLu	Leu	Leu	Pro	_	Glu	Gly	Asn	Lys		Leu	Leu	Thr	Phe		Phe		
99					75					80					85			
																GCT		462
		His	Ile	-	-	Thr	Glu	Cys	-	-	Thr	Glu	Val	-	-	Ala		
103				90					95					100				
105	ACA	GTA	AAA	GAT	GAC	CTC	ACC	AAG	TGG	CAG	IAA	GTT	CTC	AAC	GCI	CAT		510
106	Thr	Val	Lys	Asp	Asp	Leu	Thr	Lys	Trp	Gln	Asn	Val	Leu	Lys	: Ala	His		
107			105	;				110	+				115	i				
109	AGC	TCT	GTG	GAC	TGG	TTA	ATA	GTG	ATA	GTI	GAA	AAT	GAI	GCC	AAG	AAA		558
110	Ser	Ser	Val	Asp	Trp	Leu	Ile	Val	Ile	val	Glu	. Asn	Asp	Ala	Lys	Lys		
111		120					125					130						•
113	AAA	AAC	AAA	ACC	AAC	ATC	CTT	CCC	CGA	ACC	TCT	ATT	GTG	GAC	: AAA	ATA		606
114	Lys	Asn	Lys	Thr	Asn	Ile	Leu	Pro	Arg	Thr	Ser	· Ile	Val	Asp	Lys	Ile		
115	135					140					145	,				150		
117	AGA	AAT	GAT	TTT	TGT	AAT	AAA	CAG	AGT	GAC	AGG	TGT	GTT	GTG	CTC	TCC		654
118	Arg	Asn	Asp	Phe	Cys	Asn	Lys	Gln	Ser	Asp	Arg	Cys	Val	Val	Leu	Ser		
119					155					160					165			
121	GAC	CCC	TTG	AAC	GAC	TCT	TCT	CGA	ACT	CAG	GAA	TCC	TGG	TAA	GCC	TTC		702
122	Asp	Pro	Leu	Lys	Asp	Ser	Ser	Arg	Thr	Gln	Glu	Ser	Trp	Asn	Ala	Phe		
123				170	_			_	175					180				
125	CTG	ACC	AAA	CTC	AGG	ACA	TTG	CTT	CTT	ATG	TCT	TTT	ACC	·AAA	AAC	CTA		750
126	Leu	Thr	Lvs	Leu	Arq	Thr	Leu	Leu	Leu	Met	Ser	Phe	Thr	Lys	Asn	Leu		
127			185		-			190					195	_				
129	GGC	AAG	TTT	GAG	GAT	GAC	ATG	AGA	ACC	TTG	AGG	GAG	AAG	AGG	ACT	GAG		798
																Glu		
131	1	200					205	9			5	210		5				•
	CCA			AGC	ጥጥጥ	ጥርጥ		ጥልጥ	ጥጥር	ΔͲα	GTTT		GAG	GAG	Стт	GCC		846
												Gln						0.0
	215	O + 1	5	JUI		220		-11	- 110		225		Ç1 a		. <b></b> cu	230		
	213					220					223					250		





RAW SEQUENCE LISTING DATE: 04/24/2001 PATENT APPLICATION: US/09/749,273 TIME: 11:11:30

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139
142 Asp Glu Leu Asp Ala Leu Phe Ser Gln Tyr Val Val Asn Phe Gly Ala 143 250 255 260  145 GGG GAT GGT GCC AAC TGG CTG ACT TTT TTC TGC CAG CCA GTG AAG AGC 146 Gly Asp Gly Ala Asn Trp Leu Thr Phe Phe Cys Gln Pro Val Lys Ser 147 265 270 275  149 TGG AAC GA TTG ATC CTC CGA AAA CCC ATA GAT ATG GAG AAG CG GAA 150 Trp Asn Gly Leu Ile Leu Arg Lys Pro Ile Asp Met Glu Lys Arg Glu 151 280 285  153 TCG ATC CAG AGG CGA CAC CTG TTT TTC TGC CGC AGT TAC CTG 154 Ser Ile Gln Arg Arg Glu Ala Thr Leu Leu Asp Leu Arg Ser Tyr Leu 155 295 300 305  157 TTC TCT CGC CAG AGG CGA CAC CTG TT GAT CTG CGC AGT TAC CTG 158 Phe Ser Arg Gln Cys Thr Leu Leu Leu Phe Leu Gln Arg Pro Trp Glu 159 320 325  161 GTG GCC CAG CGC CC CTA GAG CTG CTG CTG CTG CTG CAC AAC TGC GAA CTG 158 Phe Ser Arg Gln Cys Thr Leu Leu Leu His Asn Cys Val Gln Glu Leu 163 330 335  166 AAG CTC TAA GAA GTC TCT GTC CAC ACT CTG CAC AAC TGC GTG CAC GAA CTG 169 TTT CTG AGC TGT CTG CAG AGG GTG CTG TGC CAC CTG GTG GAC TGC TGC TGC 169 TTT CTG AGC TGT CTG CAG AGC GTG CAC AAC TGC TGC GAC TGC CAC CTG GAG 174 Arg Ala Gln Ile Asp Ser Asn Ile Ala His Thr Val Gly Leu Trp Ser 175 375  176 TTG GCC AGG AAC CAC AAC TTG CCC CAC CTG GAG ATG GAC CTG TGC GAC CAC TGC GAC AAC TGC TGC GAC CAC TGC GAC AAC TGC TGC GAC CAC AAC TGC GAC CAC ACC TGC GAC AAC ACC TGC GAC ACC TGC TGC CAC AAC TGC TGC GAC CTG CTG CAC AAC TGC TGC GAC CTG CAC AAC TGC TGC GAC CTG CAC AAC ACC TGC GAC CTG CAC AAC TGC TGC GAC CTG CAC AAC TGC TGC GAC CAC ACC TGC CAC AAC ACC TGC GAC CAC ACC TGC GAC CAC ACC TGC TGC GAC CAC ACC TGC TGC GAC CAC ACC TGC TGC CAC ACC ACC ACC ACC ACC TGC GAC CAC ACC TGC TGC GAC CAC ACC ACC ACC ACC ACC ACC ACC A
143
146 Gly Asp Gly Ala Asn Trp Leu Thr Phe Phe Cys Gln Pro Val Lys Ser 270 275 275 270 275 275 276 277 275 275 275 275 275 275 275 275 275
149
149 TGG AAC GGA TTG ATC CTC CGA AAA CCC ATA GAT ATG GAG AAG CGG GAA 150 Trp Asn Gly Leu Ile Leu Arg Lys Pro Ile Asp Met Glu Lys Arg Glu 280 285 285 290 153 TCG ATC CAG AGG CGA GAA GCC ACC CTG TTA GAT CTG CGC AGT TAC CTG 1086 154 Ser Ile Gln Arg Arg Glu Ala Thr Leu Leu Asp Leu Asp Leu Arg Ser Tyr Leu 155 295 300 300 300 300 300 300 300 300 300 30
150 Trp Asn Gly Leu Ile Leu Arg Lys Pro Ile Asp Met Glu Lys Arg Glu
151
153 TCG ATC CAG AGG CGA GAA GCC ACC CTG TTA GAT CTG CGC AGT TAC CTG 154 Ser Ile Gln Arg Arg Glu Ala Thr Leu Leu Asp Leu Arg Ser Tyr Leu 155 295 157 TTC TCT CGC CAG TGC ACC TTG CTG CTC TTC CTG CAG AGG CCG TGG GAG 1134 158 Phe Ser Arg Gln Cys Thr Leu Leu Leu Leu CTG CAG AGG CCG TGG GAG 1154 159 315 320 325 161 GTG GCC CAG CGC CCTA GAG CTG CTG CTG CAC AAC TGC GTG CAG GAG CTG 162 Val Ala Gln Arg Ala Leu Glu Leu Leu Leu His Asn Cys Val Gln Glu Leu 163 330 330 330 330 330 330 340 165 AAG CTC TTA GAA GTC TCT GTC CCA CCT GGT GCT GCT GAC AAC TGC TGG GTG 166 Lys Leu Leu Glu Val Ser Val Pro Pro Gly Ala Leu Asp Cys Val Gln Glu Leu 167 345 350 350 340 168 TTT CTG AGC TGT CTG GAG GTG TGC TGG GAG TTG TGG GTG 1230 167 TAG GAG AGC TGT CTG GAG GTG TGC TGG GAG ACC TGC TGG GAG 1274 Arg Ala Gln Ile Asp Ser Asn Ile Ala His Thr Val Gly Leu Trp Ser 175 375 380 380 380 380 380 380 380 380 380 380
154   Ser   Tie   Gln   Arg   Arg   Glu   Ala   Thr   Leu   Leu   Asp   Leu   Arg   Ser   Tyr   Leu   Sor   295   300   305   310   310   315   310   315   315   315   315   315   315   315   315   315   320   325
155   295   300   305   305   310   310   3110   3114   3157   316   3174   316   3174   3175   31
157 TTC TCT CGC CAG TGC ACC TTG CTG CTG CTG CTG CAG AGG CCG TGG GAG 1134 158 Phe Ser Arg Gln Cys Thr Leu Leu Leu Phe Leu Gln Arg Pro Trp Glu 325 161 GTG GCC CAG CGC GCC CTA GAG CTG CTG CAC AAC TGC GTG CAG GAA CTG 1182 162 Val Ala Gln Arg Ala Leu Glu Leu Leu His Asn Cys Val Gln Glu Leu 163 163 330 335 340 165 AAG CTC TTA GAA GTC TCT GTC CCA CCT GGT GCT CTG GAC TGC TGG GTG TGG GTG TAG GAC CTG TAG AGC TGC TGG TGG TGG TGG TGG TGG TGG TGG T
158
159
161 GTG GCC CAG CGC GCC CTA GAG CTG CTG CAC CAC CAC GTG CAC GAAC TGC GTG CAG GAA CTG  162 Val Ala Gln Arg Ala Leu Glu Leu Leu His Asn Cys Val Gln Glu Leu 163
162         Val         Ala         Gln         Arg         Ala         Leu         Glu         Leu         His         Asn         Cys         Val         Gln         Glu         Leu         1230
163
165         AAG         CTC         TTA         GAA         GTC         TCT         GTC         CCA         CCT         GGT         CCT         GGC         TGG         TGG         TGG         GTG         1230           166         Lys         Leu         Leu         Glu         Val         Ser         Val         Pro         Pro         Gly         Ala         Leu         Asp         Cys         Trp         Val           167         TTC         GAC         TGT         CTG         GAG         GTG         TTG         CAG         AGG         ATA         GAA         GGC         TGT         GAC         1278           170         Phe         Leu         Ser         CYs         Leu         GLu         Val         Leu         Glu         Val         Leu         Glu         Val         Leu         Glu         Val         Leu         Glu         Arg         11e         Glu         GAC         CYS         Asp         1278         1278         1278         1278         1278         1278         1278         1278         1278         1278         1278         1278         1278         1278         1278         1278         1278
166         Lys         Leu         Leu         Glu         Val         Ser         Val         Pro         Pro         Gly         Ala         Leu         Asp         Cys         Trp         Val           167         345         355         350         355         355         355         1278           169         TTT         CTG         AGC         TGT         CTG         GAG         GTG         TTG         CAG         AGA         AGC         TGT         GAC         1278           170         Phe         Leu         Ser         Cys         Leu         Glu         Val         Leu         Gln         AGC         TGT         GAC         1278           171         360         CTC         CYs         Leu         GLU         Val         Leu         Glu         Val         CYs         Cys         Asp         1278         Asp         370         1326         1326         1326         1326         1326         1326         1326         1326         1326         1326         1326         1326         1326         1327         1326         1326         1327         1326         1326         1327         1326         1326
167
169         TTT         CTG         AGC         TGT         CTG         GAG         GTG         TTG         CAG         AGG         ATA         GAA         GGC         TGT         GAC         1278           170         Phe         Leu         Ser         Cys         Leu         Glu         Val         Leu         Gln         Arg         Ile         Glu         Gly         Cys         Cys         Asp           171         360         CSC         CAC         ACC         ACC         GTG         GGC         CTA         Asp           173         CGG         GCA         CAG         ATC         GAC         TCA         AAC         ATT         GCC         CAC         ACT         GGG         CTA         TGG         AGC         1326           174         Arg         Ala         GII         Ile         Asp         Ser         Asp         Ile         Ala         ACT         TGG         GGC         TTA         CTA         GGC         TTA         CTA         GGC         TTA         CTA         TGG         GGC         TTG         GGC         TTG         TGG         CTT         TGG         ACA         TGC         TGA
170         Phe         Leu         Ser         Cys         Leu         Glu         Val         Leu         Gln         Arg         Ile         Glu         Gly         Cys         Cys         Asp           171         360         Cac         CAC         ATC         GAC         TCA         AAC         ATT         GCC         CAC         ACT         GGG         CTA         TGG         AGC         1326           174         Arg         Ala         Gln         Ile         Asp         Ser         Asn         Ile         ALa         GTG         GGG         CTA         TGG         AGC         1326           175         375         Tac         GAC         AAA         AAG         TTA         AAG         TCC         TTG         GGC         TAT         CTA         TGT         GGA         CTT         390         1374           177         TAT         GCC         ACA         AAA         AAA         TTA         AAG         TTG         GGC         TTT         TGT         GGA         CTT         AAG         TCC         TTG         GGC         TTT         Leu         AGA         AGT         CTC         AAC         AGA
171
174 Arg Ala Gln Ile Asp Ser Asn Ile Ala His Thr Val Gly Leu Trp Ser 380  175 375
174 Arg Ala Gln Ile Asp Ser Asn Ile Ala His Thr Val Gly Leu Trp Ser 380  175 375
175       375       380       385       390         177       TAT       GCC       ACA       GAA       AAG       TTA       AAG       TCC       TTG       GGC       TAT       CTA       TGT       GGA       CTT       GTG       1374         178       Tyr       Ala       Thr       Glu       Lys       Leu       Lys       Ser       Leu       Gly       Tyr       Leu       Cys       Gly       Leu       Val         179       395       Leu       Lys       Leu       CYs       Gly       Leu       Val         181       TCA       GAG       AAA       GGA       CCT       AAC       CTC       AAC       ACA       GTT       GAC       CTT       1422         182       Ser       Glu       Lys       Gly       Pro       Asn       Ser       Glu       Asn       Leu       Asp       Leu       Asn       Arg       Thr       Val       Asp       Leu       Asp       Leu       Asp       Leu       Asp       Leu       Asp       Leu       Asp       Leu       Asp       Thr       Ala       Asp       Leu       Asp       Leu       Asp       Thr <td< td=""></td<>
178 Tyr Ala Thr Glu Lys Leu Lys Ser Leu Gly Tyr Leu Cys Gly Leu Val 179
179
181       TCA GAG AAA GGA CCT AAC TCA GAA GAT CTC AAC AGG ACA GTT GAC CTT       1422         182       Ser Glu Lys Gly Pro Asn Ser Glu Asp Leu Asn Arg Thr Val Asp Leu       183 Leu         185       TTG GCA GGT TTG GGA GCT GAG CCA GAA ACA GCC ACC ACC ACC ACC ACC
182       Ser Glu Lys Gly Pro Asn Ser Glu Asp Leu Asn Arg Thr Val Asp Leu         183       410       415       420         185       TTG GCA GGT TTG GGA GCT GAG CGA CCA GAA ACA GCC AAC ACA GCT CAG       1470         186       Leu Ala Gly Leu Gly Ala Glu Arg Pro Glu Thr Ala Asn Thr Ala Gln       435         187       425       430       435         189       AGT CCT TAT AAG AAA CTG AAA GAA GCA TTA TCG TCA GTG GAA GCT TTT       1518         190       Ser Pro Tyr Lys Lys Lys Leu Lys Glu Ala Leu Ser Ser Val Glu Ala Phe         191       440       445         193       GAA AAA CAC TAC TAC TTA GAT TTG TCC CAT GCC ACC ATT GAA ATG TAT ACA       1566
183
185       TTG       GCA       GGA       GCT       GAG       CCA       GAA       ACA       GCC       AAC       ACA       GCT       CAG       1470         186       Leu       Ala       Gly       Ala       Glu       Arg       Pro       Glu       Thr       Ala       Asn       Thr       Ala       Gln       435         189       AGT       CCT       TAT       AAG       AAA       CTG       AAA       GAA       GCA       TTA       TCG       TCA       GTG       GAA       GCT       TTT       1518         190       Ser       Pro       Tyr       Lys       Leu       Lys       Glu       Ala       Leu       Ser       Ser       Val       Glu       Ala       Phe         191       440       445       450 <td< td=""></td<>
186       Leu       Ala       Gly       Ala       Glu       Arg       Pro       Glu       Thr       Ala       Asn       Thr       Ala       Gln         187       425       430       435       435         189       AGT       CCT       TAT       AAA       CAG       GAA       GCA       TTA       TCG       TCA       GTG       GAA       GCT       TTT       1518         190       Ser       Pro       Tyr       Lys       Leu       Lys       Glu       Ala       Leu       Ser       Ser       Val       Glu       Ala       Phe         191       440       445       450       450         193       GAA       AAA       CAC       TAT       GAT       TAT       ACA       1566
187
189 AGT CCT TAT AAG AAA CTG AAA GAA GCA TTA TCG TCA GTG GAA GCT TTT 190 Ser Pro Tyr Lys Lys Leu Lys Glu Ala Leu Ser Ser Val Glu Ala Phe 191 440 445 450 193 GAA AAA CAC TAC TTA GAT TTG TCC CAT GCC ACC ATT GAA ATG TAT ACA 1566
190 Ser Pro Tyr Lys Lys Leu Lys Glu Ala Leu Ser Ser Val Glu Ala Phe 191 440 445 450 450 193 GAA AAA CAC TAC TTA GAT TTG TCC CAT GCC ACC ATT GAA ATG TAT ACA 1566
191 440 445 450 193 GAA AAA CAC TAC TTA GAT TTG TCC CAT GCC ACC ATT GAA ATG TAT ACA 1566
193 GAA AAA CAC TAC TTA GAT TTG TCC CAT GCC ACC ATT GAA ATG TAT ACA 1566
194 Glu Lys His Tyr Leu Asp Leu Ser His Ala Thr Ile Glu Met Tyr Thr
195 455 460 465 470
197 AGC ATT GGG AGG ATT CGA TCT GCT AAG TTT GTT GGA AAA GAT CTG GCA 1614
198 Ser Ile Gly Arg Ile Arg Ser Ala Lys Phe Val Gly Lys Asp Leu Ala
199 475 480 485
201 GAG TTT TAC ATG AGG AAA AAG GCT CCA CAA AAG GCA GAA ATC TAT CTT 1662





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Input Set : N:\Crf3\RULE60\09749273.txt
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202 203	Glu	Phe	Tyr	Met 490	Arg	Lys	Lys	Ala	Pro 495	Gln	Lys	Ala	Glu	Ile 500	Tyr	Leu	
	CAA	GGA	GCA		AAA	AAC	TAC	CTG		GAG	GGC	TGG	GCA	CTC	CCC	ATC	1710
														Leu			-,-,
207	_	-	505		•		-	510			_	•	515				
209	ACA	CAC	ACA	AGG	AAG	CAG	CTG	GCC	GAA	TGT	CAA	AAG	CAC	CTT	GGA	CAA	1758
														Leu			
211		520					525					530					
														GAC			1806
		Glu	Asn	Tyr	Leu		Thr	Ser	Ser	Leu		Ala	Ser	Asp	His		
	535			~~~	a. a	540		a.a	mma	maa	545	~~~	3 (11 3	omm.		550	1054
														CTT			1854
218	Lеи	THE	GIU	GIU	555	Arg	гуу	HIS	Pne	560	GIII	Gru	116	Leu	565	Pile	
	GCC	AGC	CAG	CCG		GAC	AGC	CCA	GGT		ΔΔG	ΔͲΔ	GTG	CTA		ATG	1902
														Leu			2,02
223			02	570					575		-1-			580			
	CAT	TCC	TTT		CAA	CTG	CGA	GAT	CTC	CAT	TTT	GAT	CCC	TCC	AAT	GCC	1950
														Ser			
227			585					590					595				
														ATG			1998
	Val		His	Val	Gly	Gly		Leu	Cys	Val	Glu		Thr	Met	Tyr	Ser	
231		600					605					610	aa		ama	a. a	2046
														AAT			2046
	615	мет	Pro	vaı	Pro	620	HIS	vai	GIU	GIN	625	vaı	vaı	Asn	vaı	630	•
		AGC	א ידיים	CAC	ΔΔΔ		AGC	ጥልር	CGG	ΔAG	-	GCG	GAG	TGG	ርጥጥ		2094
														Trp			2034
239		001			635			-1-	5	640					645		
241	AAG	CAC	AAG	ACG	TCC	AAT	GGG	ATC	ATT	AAC	TTT	CCA	CCC	GAG	ACC	GCA	2142
242	Lys	His	Lys	Thr	Ser	Asn	Gly	Ile	Ile	Asn	Phe	Pro	${\tt Pro}$	Glu	Thr	Ala	
243				650					655					660			
														TTG			2190
	Pro	Phe		Val	Ser	Gln	Asn		Leu	Pro	Ala			Leu	$\mathtt{Tyr}$	Glu	
247		mmm	665	3.03		003	тот	670	220	maa	mmc		675	х ст	000	3 mm	ກ່າວຄ
														ACT Thr			2238
251	Met	680	GLU	Arg	ser	PIO	685	ASP	ASII	ser	Leu	690	1111	1111	Gry	116	
	АТС		AGA	AAC	GTC	CAC		СТС	CTG	AGA	AGG		GAG	AGC	AGC	TCC	2286
														Ser			
255						700				_	705					710	
257	TCT	CTA	GAG	ATG	CCC	TCA	GGG	GTG	GCT	CTG	GAG	GAG	GGT	GCC	CAC	GTG	2334
258	Ser	Leu	Glu	Met	Pro	Ser	Gly	Val	Ala	Leu	Glu	Glu	Gly	Ala	His	Val	
259					715					720	•				725	,	
														CAG			2382
	Leu	Arg	Cys		His	Val	Thr	Leu		Pro	Gly	Ala	Asn	Gln	Ile	Thr	
263	mm~	100	» c=	730	000		<i>-</i>	000	735	3.00	mam	202	OT C	740	070	CITIC	2420
														AGG Arg			2430
200	L116	arg	THE	GTU	ATG	гуз	GIU	PTO	стА	TIII	тАт	TIII	Leu	AT 9	GIII	теп	





## RAW SEQUENCE LISTING PATENT APPLICATION: US/09/749,273 DATE: 04/24/2001 TIME: 11:11:30

Input Set : N:\Crf3\RULE60\09749273.txt
Output Set: N:\CRF3\04242001\1749273.raw

267			745					750					755				
269	TGC	GCÇ	TCG	GTG	GGC	TCC	GTG	TGG	TTC	GTC	CTC	CCT	CAC	ATC	TAC	CCC	2478
270	Cys	Ala	Ser	Val	Gly	Ser	Val	Trp	Phe	Val	Leu	Pro	His	Ile	Tyr	Pro	
271		760					765					770					
273	ATT	GTG	CAG	TAC	GAC	GTG	TAC	TCA	CAG	GAG	CCC	CAG	CTG	CAC	GTG	GAG	2526
274	Ile	Val	Gln	Tyr	Asp	Val	Tyr	Ser	Gln	Glu	Pro	Gln	Leu	His	Val	Glu	
275	775					780					785					790	
277	CCG	CTG	GCT	GAT	AGC	CTT	CTG	GCA	GGC	ATT	CCT	CAG	AGA	GTC	AAG	TTC	2574
278	Pro	Leu	Ala	Asp	Ser	Leu	Leu	Ala	Gly	Ile	Pro	Gln	Arg	Val	Lys	Phe	
279				_	795				_	800			_		805		
281	ACT	GTC	ACT	ACC	GGC	CAT	GAT	ACG	ATA	AAG	AAT	GGA	GAC	AGC	CTG	CAG	2622
282	Thr	Val	Thr	Thr	Gly	His	Asp	Thr	Ile	Lys	Asn	Gly	Asp	Ser	Leu	Gln	
283	•			810	•		-		815	•		_	•	820			
285	CTT	AGC	AAT	GCC	GAA	GCC	ATG	CTC	ATC	CTG	TGC	CAG	GCG	GAG	AGC	AGG	2670
	Leu																
287			825					830					835			,	
289	GCT	GTG	GTC	TAC	TCC	AAC	ACG	AGA	GAA	CAG	TCT	TCT	GAG	GCC	GCG	CTC	2718
	Ala																
291		840		•			845	_				850					
293	CGG	ATT	CAG	TCC	TCC	GAC	AAG	GTC	ACG	AGC	ATC	AGT	CTG	CCT	GTT	GCG	2766
	Arg																
	855					860	•				865					870	
297	CCT	GCG	TAC	CAC	GTG	ATC	GAA	TTT	GAA	CTG	GAA	GTT	CTC	TCT	TTA	CCT	2814
	Pro																
299			-		875					880					885		
301	TCA	GCC	CCA	GCA	CTC	GGA	GGG	GAG	AGT	GAC	ATG	CTG	GGG	ATG	GCA	GAG	2862
	Ser																
303				890		-	-		895	-			•	900			
305	CCC	CAC	AGG	AAG	CAT	AAG	GAC	AAA	CAG	AGA	ACT	GGC	CGC	TGC	ATG	GTT	2910
306	Pro	His	Arg	Lys	His	Lys	Asp	Lys	Gln	Arg	Thr	Gly	Arg	Cys	Met	Val	
307			905	-		_	_	910		_		_	915	_			
309	ACC	ACA	GAC	CAC	AAA	GTG	TCG	ATT	GAC	TGC	CCG	TGG	TCC	ATC	TAC	TCC	2958
310	Thr	Thr	Asp	His	Lys	Val	Ser	Ile	Asp	Cys	Pro	Trp	Ser	Ile	Tyr	Ser	
311		920	_		_		925		_	=		930			<del>-</del>		
313	ACA	GTC	ATC	GCA	CTG	ACC	TTC	AGC	GTA	CCC	TTC	AGG	ACC	ACA	CAC	AGC	3006
314	Thr	Val	Ile	Ala	Leu	Thr	Phe	Ser	Val	Pro	Phe	Arg	Thr	Thr	His	Ser	
315	935					940					945					950	
317	CTC	CTG	TCC	TCA	GGA	ACA	CGG	AAA	TAT	GTT	CAA	GTT	TGT	GTC	CAG	AAT	3054
318	Leu	Leu	Ser	Ser	Gly	Thr	Arg	Lys	Tyr	Val	Gln	Val	Cys	Val	Gln	Asn	
319					955					960					965		
321	TTG	TCA	GAA	CTT	GAC	TTT	CAG	CTG	TCA	GAT	AGT	TAT	CTT	GTA	GAT	ACC	3102
322	Leu	Ser	Glu	Leu	Asp	Phe	Gln	Leu	Ser	Asp	Ser	Tyr	Leu	Val	Asp	Thr	
323				970					975					980			
325	GGT	GAT	AGT	ACC	GAC	CTG	CAA	CTA	GTA	CCA	CTG	AAC	ACG	CAG	TCC	CAG	3150
326	Gly	Asp	Ser	Thr	Asp	Leu	Gln	Leu	Val	Pro	Leu	Asn	Thr	Gln	Ser	Gln	
327			985					990					995				
329	CAG	CCC	ATC	TAC	AGC	AAG	CAG	TCG	GTG	TTC	TTC	GTC	TGG	GAA	CTC	AAG	3198
330	Gln	Pro	Ile	Tyr	Ser	Lys	Gln	Ser	Val	Phe	Phe	Val	Trp	Glu	Leu	Lys	
331		1000	)				1005	;				1010	)				





VERIFICATION SUMMARY DATE: 04/24/2001 PATENT APPLICATION: US/09/749,273 TIME: 11:11:31

Input Set : N:\Crf3\RULE60\09749273.txt
Output Set: N:\CRF3\04242001\I749273.raw

L:29 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]

L:30 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]